Chapter 6 – Utilities

Utilities Overview

The utilities windows and programs are used to help maintain VACMAN programs and database tables for optimal performance. Most of these assets can be accessed from the VACMAN at a Glance window or directly from the menu options. Some of the maintenance windows, such as Backup and Pack, should be used on a daily basis, while other windows such as File Locations will be used occasionally.

Data Maintenance

Backup and/or Pack Database Table(s)

System and power failures can happen at random, oftentimes causing either loss or corruption of valuable data. The Backup and Pack procedure compresses and copies most of the VACMAN tables onto your servers as a precautionary measure for such events.

- The VACMAN Backup feature backs up files in your database.

- The VACMAN Pack feature purges records that are marked for deletion.

- Both features can be performed either independently or together.

CDC strongly recommends that your project performs a Backup and Pack at the end of each day to ensure that you do not lose any data. If you are not able to perform a Backup and Pack, you can back up VACMAN database files by backing up your entire workstation or network drive.
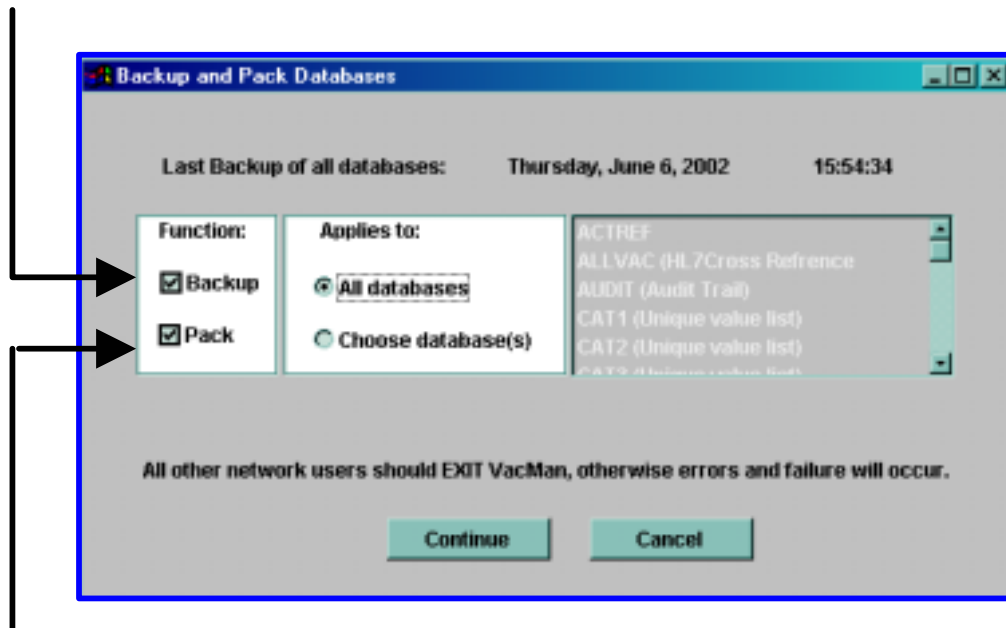
Backup

A Backup copies and combines all of your selected VACMAN files into one zip file. During a Backup, VACMAN does not require you to back up all files. Instead, it allows you to choose specific files. However, the CDC strongly recommends that every time you perform a Backup and Pack, you back up all VACMAN files, folders, and directories.

Every Backup file is automatically named "vmXXXbk.zip" where XXX represents the three-letter abbreviation of the day of the week. For example, if you perform a Backup on Monday, the file name would be vmmonbk.zip. Unless you specify otherwise, the backup zip files are stored by default in the Data folder in the VACMAN directory.

How to Backup Data

Step	Action
1	On *VACMAN at a Glance*, click the **Utilities** tab.
2	Click **Backup and/or Pack Database Table(s)**.
3	The Backup and Pack Databases window opens. In the *Function field*, select **Backup**.
4	In the *Applies to: field*, select **All databases** to back up all of your files. (If you want to only back up specific files, select Choose database(s) and then select the files you want to back up in the field to the right. Hold down the Ctrl key to select multiple files.)
5	Click the **Continue** button.

Note: Normally, your IT System Administrator will perform the Backup and Pack procedure. All but one user must be logged out of VACMAN when performing a Backup and Pack.

Pack

A Pack deletes all records that are marked for deletion and then re-indexes the database tables.

The Delete button ✂ marks records to be deleted, but they are not actually purged from VACMAN until you perform a Pack. However, all vaccine orders that are marked as deleted will be purged from VACMAN whenever you do an Exchange.

How to Pack Data

Step	Action
1	On *VACMAN at a Glance*, click the **Utilities** tab.
2	Click **Backup and/or Pack Database Table(s)**
3	The *Backup and Pack Databases* window opens. In the *Function field*, select **Pack**
4	In the *Applies to: field*, select **All databases** to pack all of your files. (If you want to only pack specific files, select **Choose database(s)** and then select the files you want to pack in the field to the right. Hold down the Ctrl key to select multiple files.)
5	Click the **Continue** button.

Restoring Data

When working with computer technology, there is always a chance that data becomes corrupted and systems become inoperable. If these situations should occur in VACMAN, you will need to restore your data back to an operable state.


How to Restore Data

Step	Action
1	On *VACMAN at a Glance*, click the **Utilities** tab.
2	Under Data Maintenance, click **Restore Database Table(s) from a Backup File**.
3	The Restore data from Backup window opens.
4	Select the [...] button next to the **Select the backup file to restore from:** field.
5	Search you hard drive to select the zip file from your last backup. Click the **Select** button.
6	The default folder for restoring backup data is the Data folder under the VACMAN directory. Although it is not recommended, you can restore your backup files to any location on your hard disk by selecting the [...] button next to the **Destination folder to restore to:** field and choosing a different folder to restore your backup files. However, if you restore your data to a location other than the default folder, you must specify within VACMAN the location of the new folder so VACMAN knows where to look for the restored files. **Note:** Your project might have renamed the VACMAN directory.
7	In the *Restore function: field*, select **All content** if you want to restore all files from your last backup, or **Choose content** if you want to restore specific files from your last backup. If you select **Choose content**, you can scroll the *Contents field* to select the files you want to back up. (Hold down the Ctrl key to select multiple files.) If you select **All content,** the *Contents field* will be unavailable**.**
8	Click the **Continue** button to begin restoring backup files. Otherwise, click the **Cancel** button to stop and exit the restore.
9	If you selected to restore the Stock or Distrib/Lots tables, VACMAN displays pop-up windows to confirm that you want to restore these files. Click the **OK** button to continue with the restore or click the **Cancel** button to cancel the restore.

Data Doctor

The Data Doctor gives you the ability to search for corrupted tables, re-index tables, and recalculate inventory. Each of these choices can be run in any combination (together or independently). Additionally, when relevant, you can select whether you want these options to be run on all or selected VACMAN database tables.
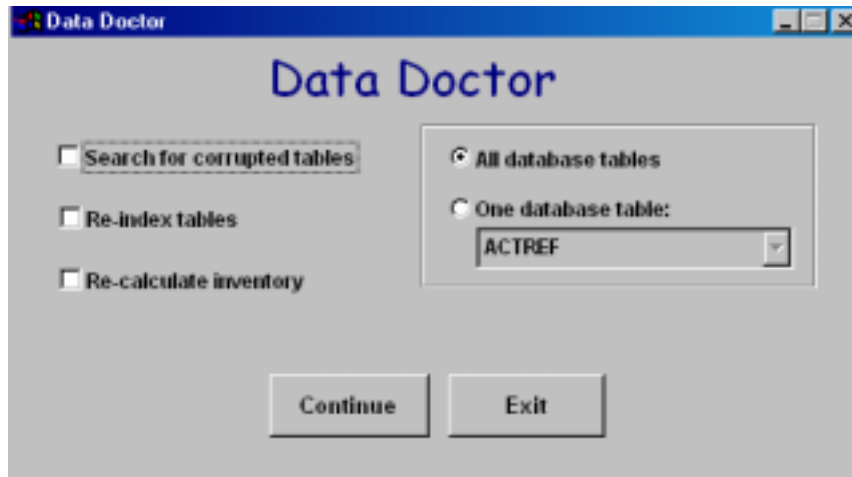
Search for Corrupted Tables

Corrupted tables occur when the table's record count is different than the physical number of records in the table. When this occurs, VACMAN displays the message "Not a table/dbf." When you select the *Search for corrupted tables* field in Data Doctor and click the Continue button, VACMAN searches and fixes all or selected corrupted tables.

Re-index Tables

*.CDX represents an index file. While index files have the same name as their database files, each index file contains a key that is separate from its database table. The Re-index tables field re-creates index files for the database tables selected. If table navigation does not operate properly, there is a good chance your index files are corrupted and you need to re-index them.

Recalculate Inventory

When you recalculate inventory, VACMAN does not prompt you to save the new data. Instead, it automatically replaces your old data files with new recalculated data files. These changes are permanent and only recoverable by restoring your entire system from your last Backup. Thus, the CDC recommends that you perform a Backup immediately before you recalculate inventory.

Import and Export

Import

Important Notes!

- *The import module is **NOT** designed or intended to provide a means of importing VACMAN 2.63 data into VACMAN 3, this objective is accomplished during new installation of VACMAN 3.*
- *If the target file type is of type Excel worksheet or Lotus worksheet, Vacman will not copy more than 16,383 or 8,191 records, respectively.*

The Import Utility in VACMAN is designed to provide one with a means of importing data files into VACMAN from a variety of different data formats that was created in external applications such as Excel. The Import Utility will import any of the following data sets:
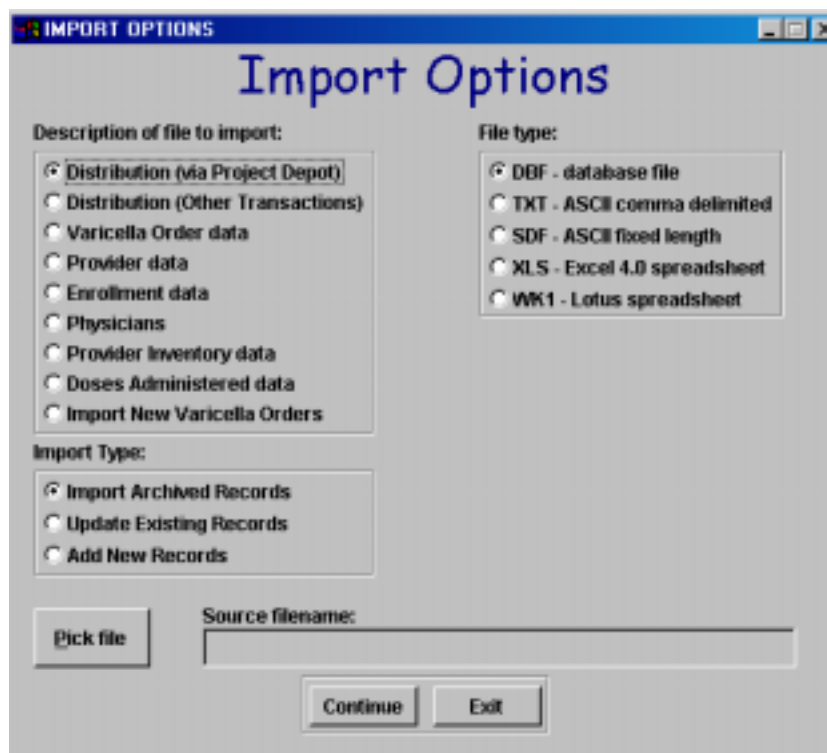
- Distributions from project depots.
- Other distributions – non-depot, including returns of vaccines, reporting of spoilage, waste, expiration, or transfers between providers.
- Varicella orders.
- Provider information.
- Enrollment information related to providers.
- Physician information.
- Provider inventories of vaccines.
- Doses administered.
- New Varicella orders.

The data sets detailed above can be output in the following file formats:

Data set	Output file formats
.dbf	**Database format**, this option will allow use of a standard database file – either a legacy version of FoxPro, Dbase, or the latest version of FoxPro.
.txt	Comma delimited format is a **text** based file that separates each data element with a comma.
.sdf	**Standard data file** is also a text based file that separates each data element with a specific number of spaces.
.xls	**Excel** spreadsheet file.
.wk1	**Lotus** spreadsheet file.

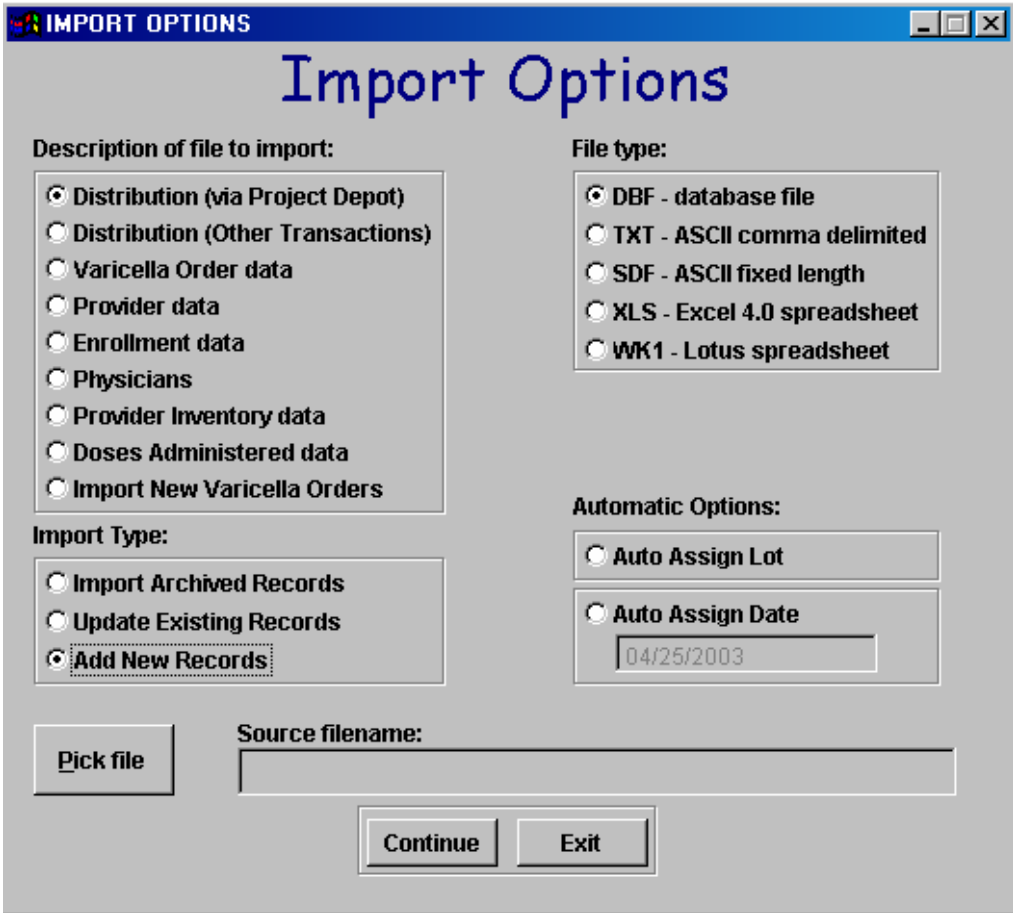Refer to **Appendix I – Import Functional Specifications** for more information.

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How to Import Data

Step	Action
1	On *VACMAN at a Glance*, click the **Utilities** tab.
2	Select **Import Data into VACMAN**.
3	On the *Import Options Screen*, select the data set you wish to import.
4	Select the Import file format you wish to use.
5	For all data sets other than *Import New Varicella Orders* an option box will be available in the bottom left corner of the screen permitting you to select an import operation.

Important Note! *The import module is **NOT** designed or intended to provide a means of importing VACMAN 2.63 data into VACMAN 3, this objective is accomplished during the new installation of VACMAN 3.*

Use this Import Type option…	To:
Import Archived Records	Reinsert records previously moved out of VACMAN with the Export – Move option. **Warning** – Data imported using this option is **not** error checked other than to insure that the file used for import is properly formatted. It is STRONGLY recommended that one does not alter these export files in any way as one may damage the integrity of one's active data.
Update Existing Records	Permit data which has been changed after export to update the active records. New records which cannot be matched to an existing record will be ignored. ALL data which is imported using this method will be subjected to the same error checking as would be used during standard keyboard entry. If any critical errors are found, they are recorded to a separate table

Use this Import Type option…	To:
	which the user may save and review later and the entire import file will be rejected.
Add New Records	Import only new records. Duplicates will be ignored.
Adding New Records via Project Depot	
Auto Assign Lot	Use the auto assign lot radio button to permit the program to automatically assign a lot number to the vaccine if that data has been left blank in the import file.
Auto Assign Date	Use the auto assign date radio button to activate a text box that you may enter a date into. If the input date is left empty, the program will enter this date into the incoming records automatically.

If you are importing new Varicella orders, an option box will allow you to select a Fund Code and State PO number that can be automatically added when this information has been left blank in the imported data.

Notes:

- **File format is very important**. To prevent any possibility of harm to the active data files, the import facility first checks in incoming data file for proper format. If the file does not match the expected structure, one will be alerted and the import operation will be aborted. Please review the appendices for detailed instructions on the proper formats for each data set and file type. One easy way to make sure the proper format is being used is to use the export utility to build a dummy file and then use this file as a template for the new data.

- **Error checking is extremely detailed.** Older data may not be able to be imported without extensive corrections as the error checking criteria in some older variations of VACMAN were not as stringent as they are in the latest release of VACMAN.

- If there is any critical error in imported data, the entire file will be rejected and the operation will be aborted. A browse window will be presented so that you may review the errors found, and then be permitted to save the errors in a standard database formatted file of one's choice. This data can then be reviewed later if one chooses either by importing it into Excel or Access.

Export

The Export Utility is designed to provide a means of exporting data files from VACMAN in a variety of different data formats for use in external applications such as Excel, or for use in other data-centric programs. The Export Utility will export any of the following data sets:

- Distributions from project depots.
- Other distributions – non-depot, including returns of vaccines, reporting of spoilage, waste, expiration, or transfers between providers.
- Varicella orders.
- Provider information.
- Enrollment information related to providers.
- Physician information.
- Provider inventories of vaccines.
- Doses administered.

The data sets detailed above can be output in the following file formats:

| Data set	Output file formats
.dbf	There are two **database formats** – legacy format for older version of FoxPro and Dbase, and visual format for the latest version of FoxPro (this data can also be reviewed with Access)
.txt	Comma delimited format is a **text** based file that separates each data element with a comma.
.sdf	**Standard data file** is also a text based file that separates each data element with a specific number of spaces
.xls	**Excel** spreadsheet file.
.wk1	**Lotus** spreadsheet file.

How to Export Data

Step	Action
1	On *VACMAN at a Glance*, click the **Utilities** tab.
2	Select **Export data. (copy or archive VACMAN data)**
3	On the Export Options Screen, select the data set you wish to export.
4	Select the export file format you wish to use.
5	In the top right corner of the form you may – optionally – select a date and PIN range for the data set you wish to export.
6	Select the move or copy option you wish to use. **Warning!** – The move option will copy data to your export file and will then remove the data from your active files. It is strongly recommended that you use the **Back up and Pack** tool before performing this action so that you will be able to restore your data in the event you loose the files or corrupt them in some manner.
7	If you choose the "distribution – other" data set a final option set will be activated on the bottom right corner of the screen that will permit you to export all files, or only a subset of them.
8	When done making your selections, you may preview the data to be exported by clicking the preview button to view the data, or click Continue to initiate the export action.
9	After clicking **Continue**, the system gives you the opportunity to select a file name
10	Your data will then be exported to the file of your choice

File Locations

The File Locations window displays information and locations of important VACMAN application files.
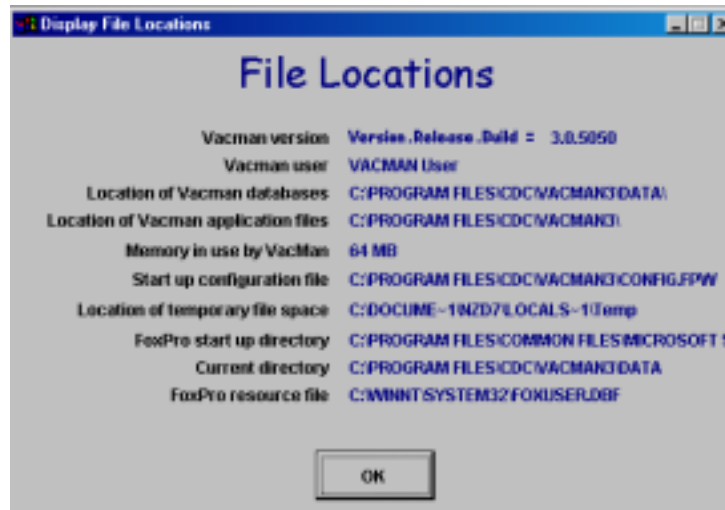
This information is mostly used by the VACMAN technical support team when they help you troubleshoot. Information in the File Locations window includes:

- The version of VACMAN
- The user who is currently logged onto VACMAN
- The file location of the VACMAN database files (this can be on a local machine or a LAN drive)
- The location of the VACMAN application files
- The amount of physical memory used by VACMAN
- The location of the VACMAN startup configuration file
- The location of temporary file space
- The location of the FoxPro start up directory
- The location of the current VACMAN directory
- The location of the FoxPro resource file

Run Another Program

The *Run Another Program* window provides an interface to run VACMAN-compatible programs (such as utility applications) without exiting VACMAN. In previous versions of VACMAN, these were separate, standalone programs. Now they are part of VACMAN 3.

How to Run Another Program

Step	Action
1	On *VACMAN at a Glance*, click the **Utilities** tab.
2	Click **Run Another Program**
3	Choose either **Area Code** *or* **Surgery**.
4	Click the **Continue** button.

Area Code

This function allows you to update segments of your provider records based upon prefix.

Surgery

Surgery gives users the ability to search for corrupted tables, re-index tables, and recalculate inventory. Each of these choices can be run in any combination (together or independently). Additionally, when relevant, you can select whether you want these options to be run on all or selected VACMAN database tables.

Corrupted tables occur when the table's "record count" is different than the physical number of records in the table. When this occurs, VACMAN displays the message "Not a table/dbf." When you select the Search for corrupted tables field in Data Doctor and click the Continue button, VACMAN searches and fixes all or selected corrupted tables.

The Re-index tables field re-creates index files for all of the database tables selected. *.CDX represents an index file. Index files have the same name as their database files, but each index file contains a key that is separate from its database table. If your data does not operate properly, there is a good chance your index files are corrupted and you need to re-index them.

When you recalculate inventory, VACMAN does not prompt you to save the new data. Instead, it automatically replaces your old data files with new recalculated data files. These changes are permanent and only recoverable by restoring your entire system from your last Backup. Thus, CDC recommends that you perform a Backup immediately before you recalculate inventory.

Exchange Data with CDC via Internet

Before you begin

Important! Before you begin, you must have a digital certificate as described below!

Digital Certificates

If you do not already have a digital certificate for exchanging data with CDC, check with your program manager, CDC SDN Support, or VACMAN Support for assistance.

Access to SDN

Your program manager should identify three people at your program with authorized access to VACMAN SDN. Those three people should then request digital certificates with access to your program's "Vaccine Management" activity on CDC's Secure Data Network.

Refer to **Appendix D - SDN Enrollment** for more information.

For additional information regarding how to apply to use the CDC Secure Data Network and how to apply for and install your digital certificate, contact SDN Technical Support at 404-498-2110 in Atlanta area, or 800-532-9929 toll-free.

Exchange Procedure

Perform the following steps to exchange data with CDC:

- Select the **Utilities** tab.

- Select **CDC Exchange.**

Receive data from CDC

- Click on the **Receive data from CDC link.**

More Information
Backup and Pack

Exchange Instructions

Important! Before you begin, you must have a digital certificate as described below!

| Requirements: | VacMan SDN requires a digital certificate be requested and received by authorized personnel within y... program, and installed within a compatible browser in order to exchange data. You should have alread... requested, received, and installed a digital certificate from CDC prior to using this feature. You cannot... exchange data with CDC if you do not have a CDC issued digital certificate. |

Perform the following steps to exchange information with CDC.

| Receive data from CDC | Be certain that you save any files downloaded from CDC into the appropriate VacMan folder, specified here:

C:\VACMAN3\DATA\RCV\

Click here to connect to the VacMan SDN Secure WebSite to download files.

Choose your program's "VACMAN" Activity from the approved activity list, then choose "**Receive File**... |

- Verify the correct digital certificate is being used and click the **OK** button to continue.

- A second prompt will appear. The password assigned to the digital certificate (not the SDN challenge phrase, unless the same password was used) must be entered. After entering the password, click the **OK** button to continue.

Note: The system can save and remember this password in the future if you check the remember password box.

- After prompting and/or authentication of the digital certificate, the SDN challenge phrase screen will be presented.

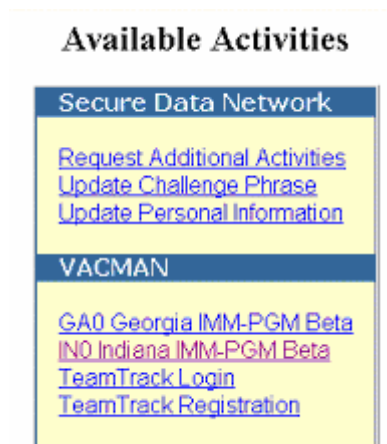CDC Secure Data Network

Enter Challenge Phrase

Please enter your challenge phrase:

[OK]

Forgot your challenge phrase? Click here

Note: If the challenge phrase has been lost or forgotten, it is possible to establish a new one by clicking the link provided and entering a replacement. If a new challenge phrase is requested, all activities will be **disabled** and must be re-approved by the appropriate program administrator.

- Once the challenge phrase has been verified,

- Verify the correct digital certificate is being used and click the **OK** button to continue.

- **Result:** The main SDN page displays a list of Available Activities.

- Select you project's name.
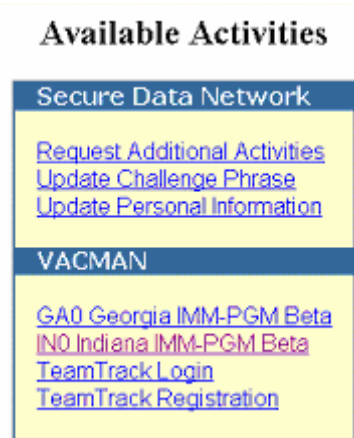
- Select **Receive Files from CDC**.

- **PLEASE WAIT** while the files are being retrieved from CDC**.**

- **Result:** Information about files that are currently available for download.

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- Select the **SDN Home** button.
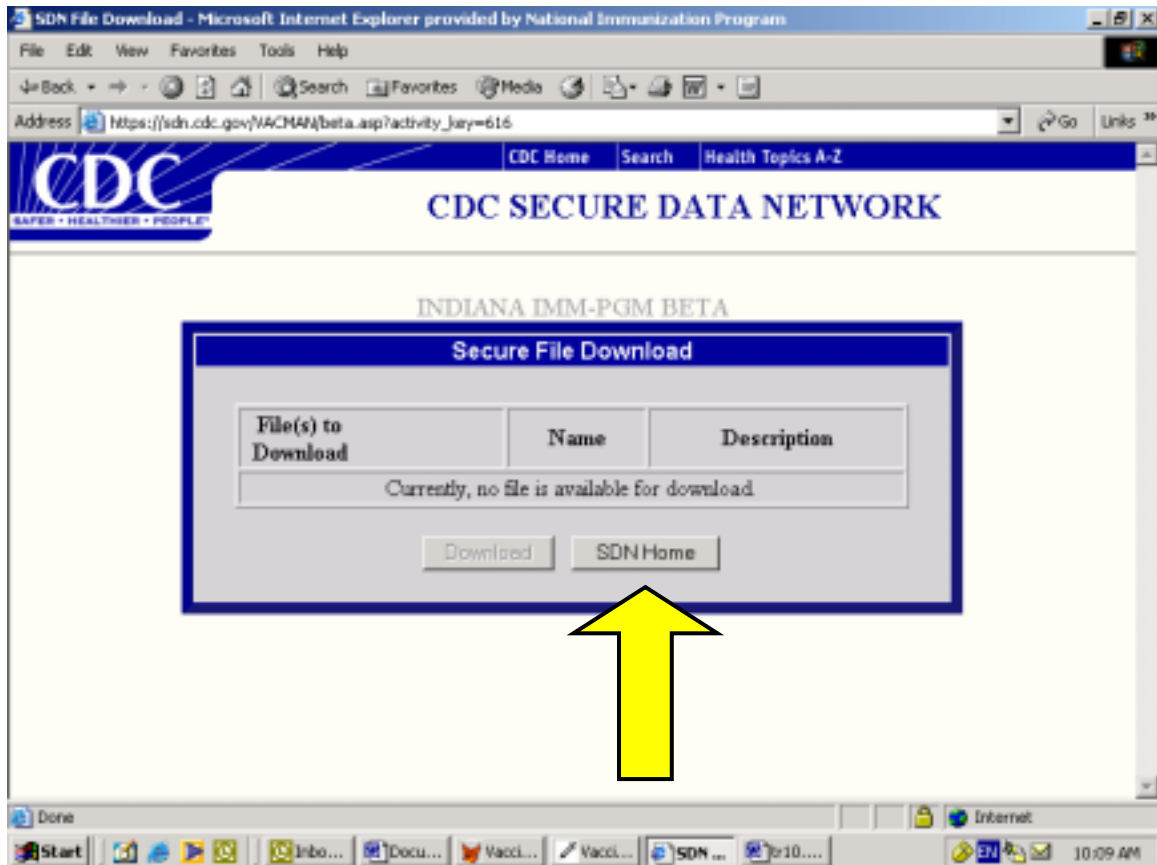
- **Result:** The main SDN page displays a list of **Available Activities**.

- Select you project's name from the Available Activities.

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- **Result:** A **Processing complete** message is displayed.

- Click the **OK** button to continue.
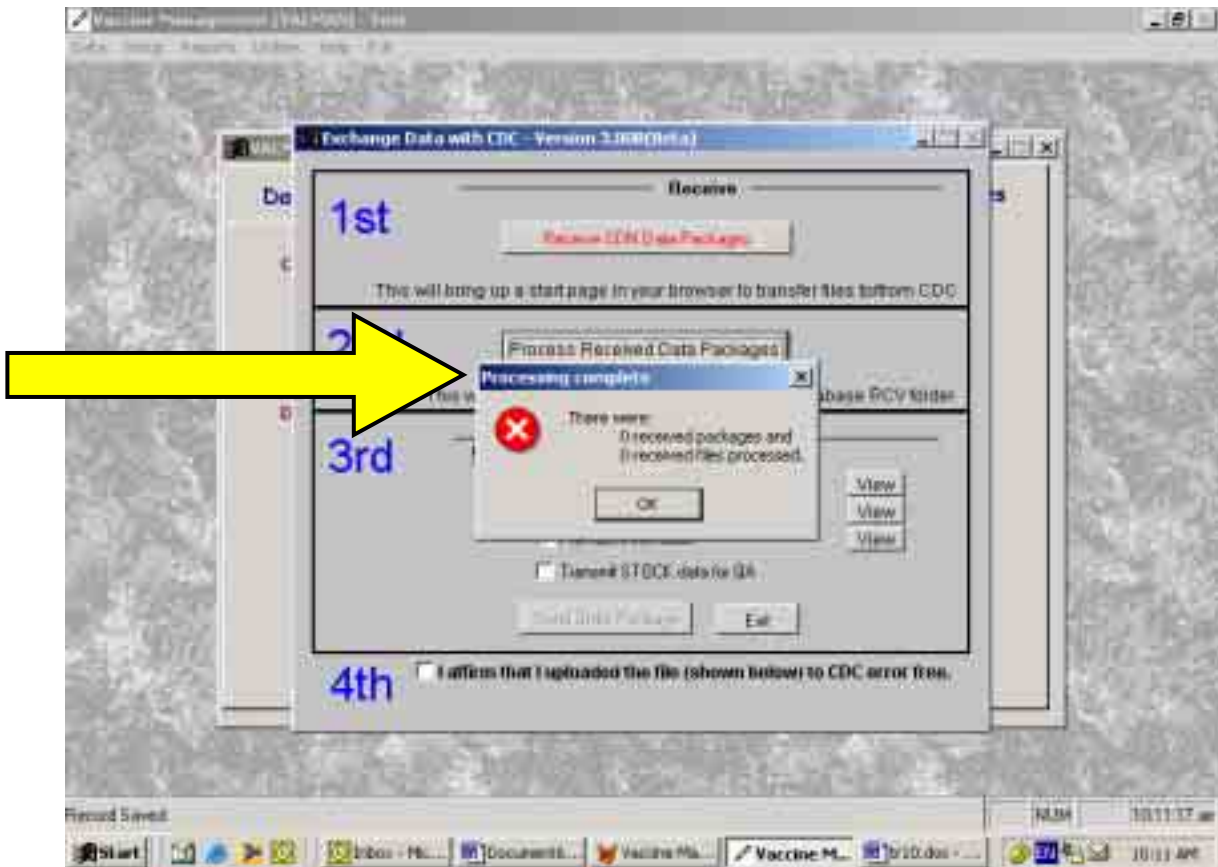
- Select the **1ˢᵗ** Button: **Receive SDN Data Packages**.
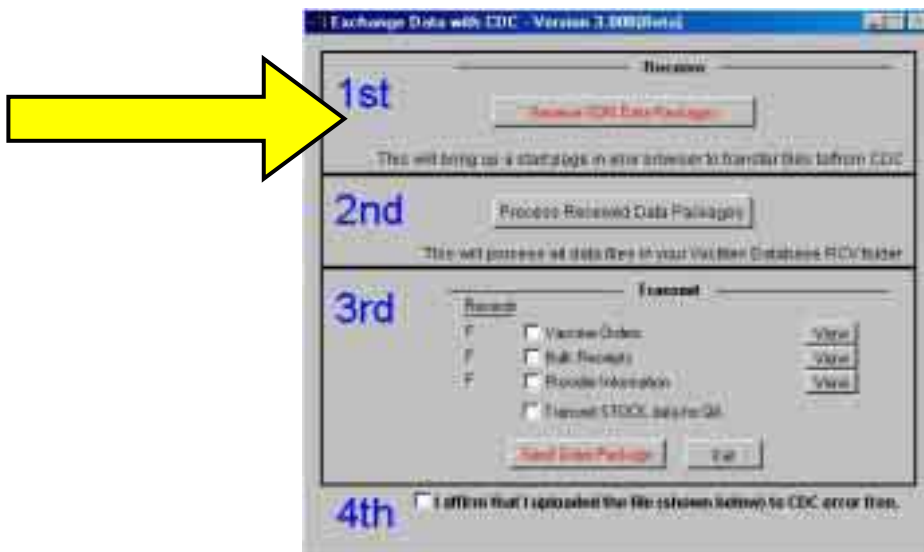
- **Result:** A **Package generated** message is displayed with the <u>file name</u>.

Important! Write down the **exact** <u>file name</u> listed. You will need it later!
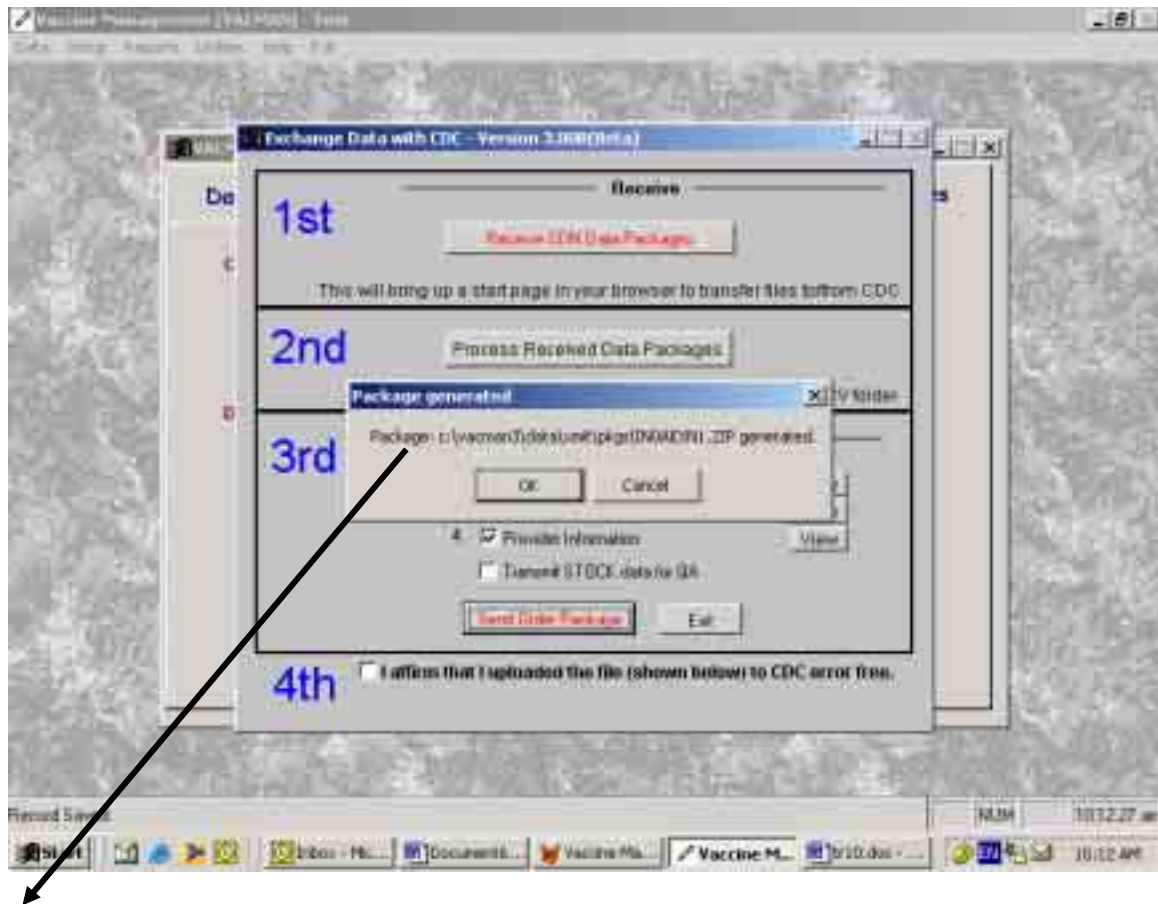
Note: The file name and directory in this example is**: c:\VACMAN3\data\xmit\pkgs\INDAEXN1.ZIP**

- <u>After you have made a note of the file name and directory</u>, select the **OK** button.

Send data to CDC

- Click on the **Send data to CDC** link**.**

- Verify the correct digital certificate is being used and click the **OK** button to continue.

- A second prompt will appear. The password assigned to the digital certificate (not the SDN challenge phrase, unless the same password was used) must be entered. After entering the password, click the **OK** button to continue.

Note: The system can save and remember this password in the future if you check the remember password box.

- After prompting and/or authentication of the digital certificate, the SDN challenge phrase screen will be presented.

Note: If the challenge phrase has been lost or forgotten, it is possible to establish a new one by clicking the link provided and entering a replacement. If a new challenge phrase is requested, all activities will be **disabled** and must be re-approved by the appropriate program administrator.

- Once the challenge phrase has been verified,

- Verify the correct digital certificate is being used and click the **OK** button to continue.

- **Result:** The main SDN page displays a list of **Available Activities**.

- Select you project's name from the Available Activities list...

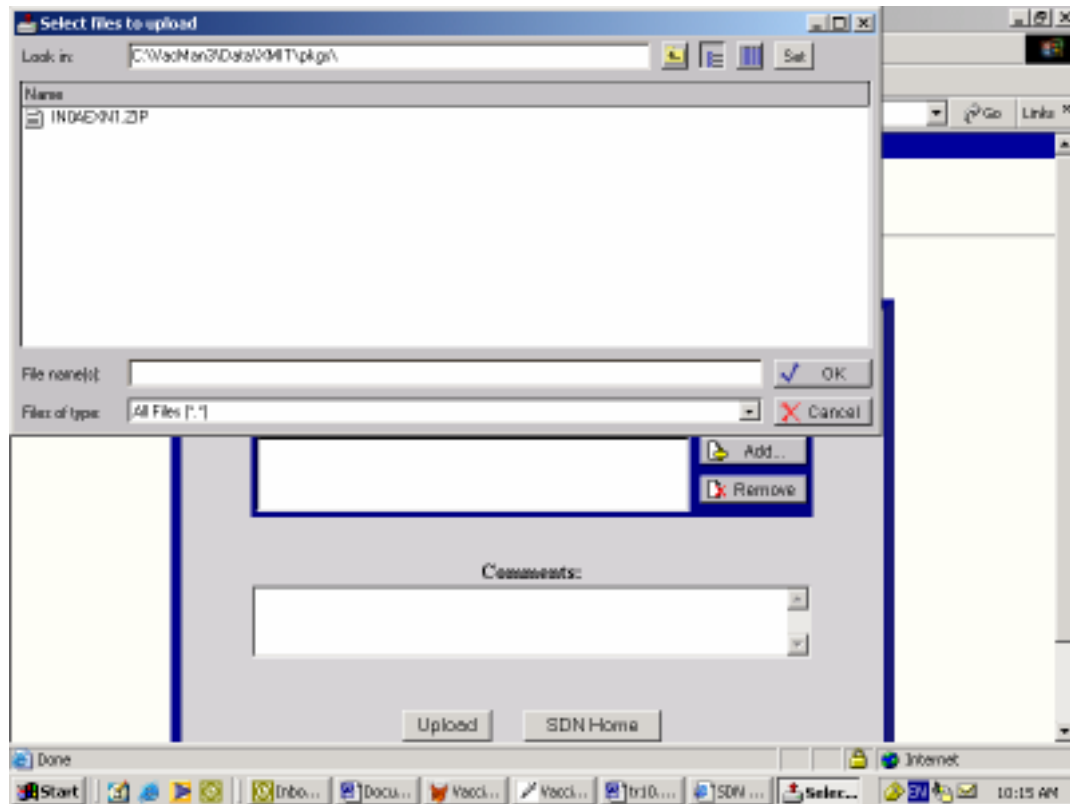

- Select **Send Files to CDC.**

Result: A *Files to upload* window displays, allowing you to add or remove files.
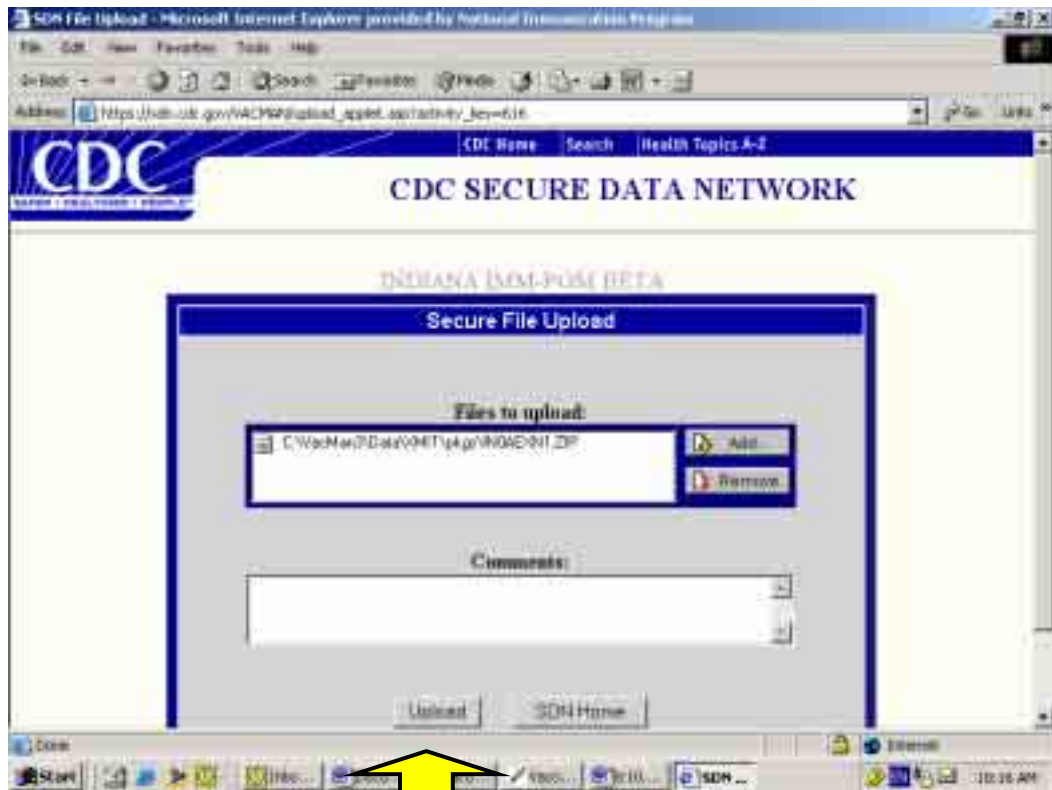
- Locate the directory where your files are located. Refer to your notes made earlier on the file and directory name.

Note: The file name and directory in this example is: **c:\VACMAN3\data\xmit\pkgs\INDAEXN1.ZIP**
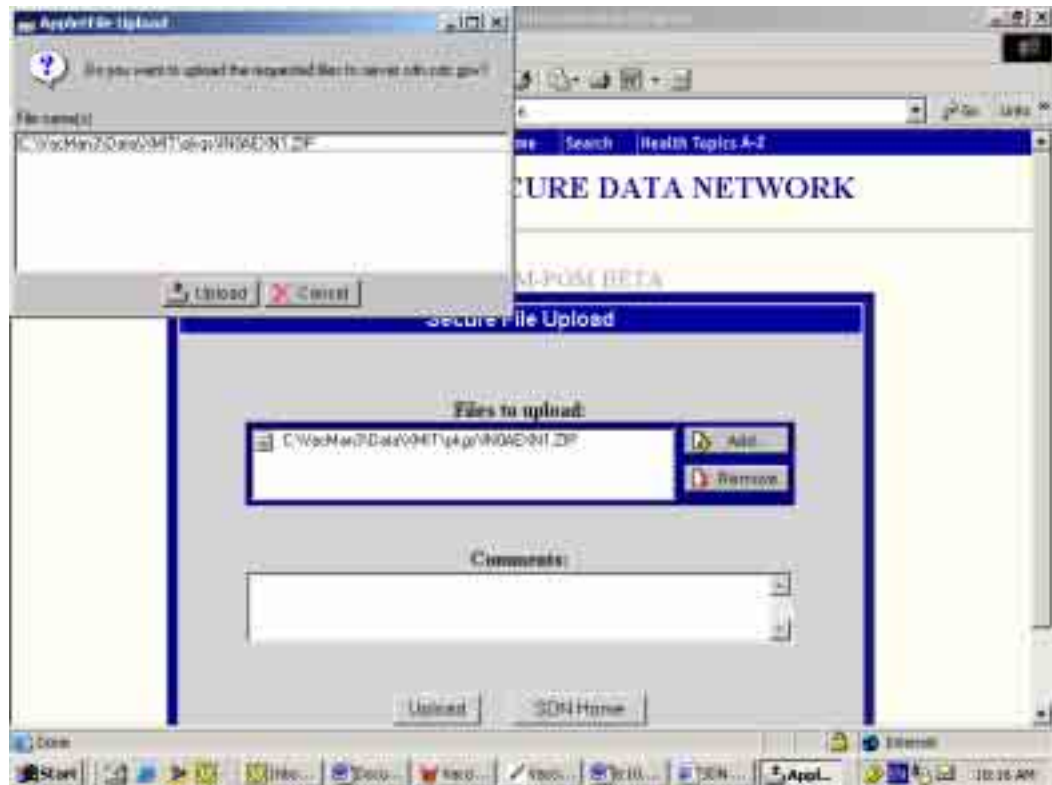
- Select the file.

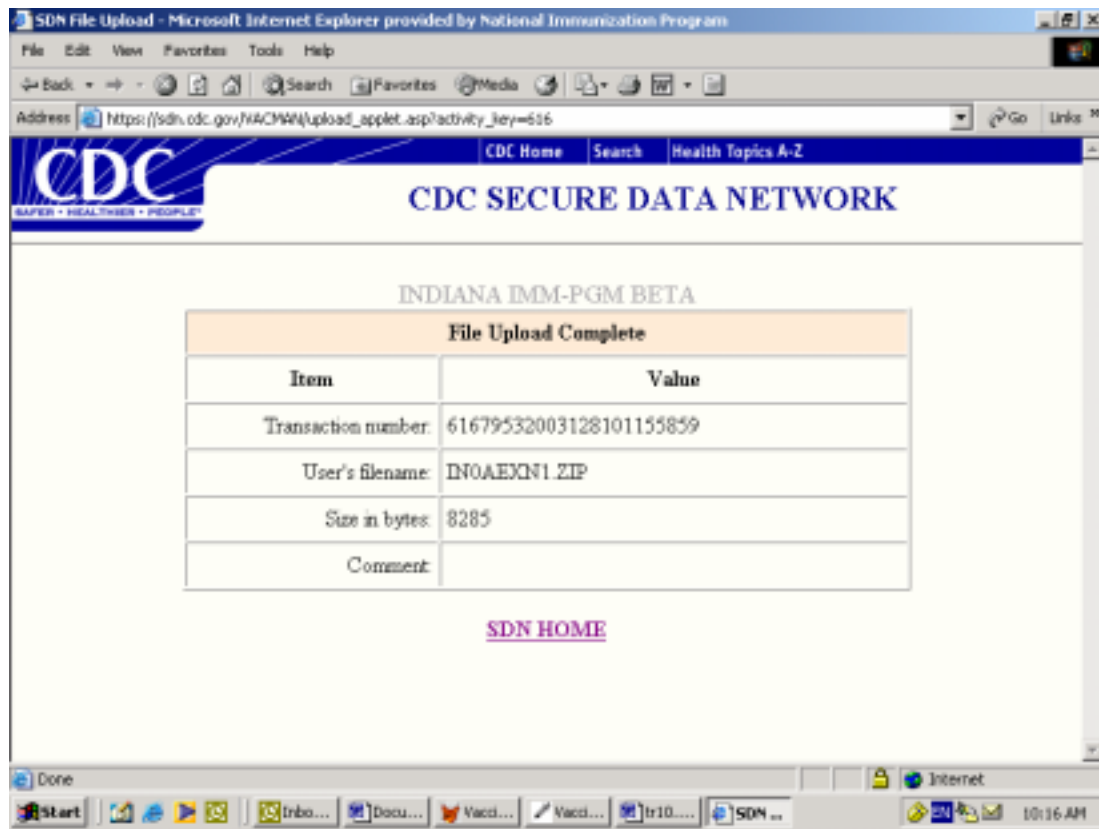**Result:** These files will be added to the Files to upload window.

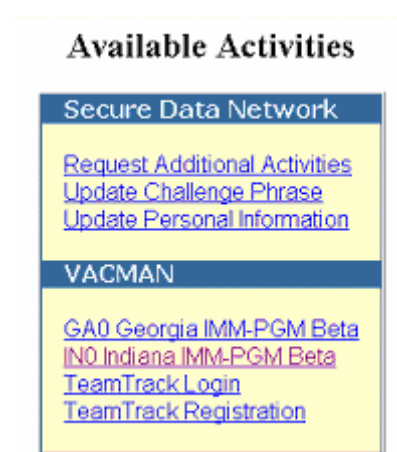**Result:** These files are now displayed in the **Files to upload** window.

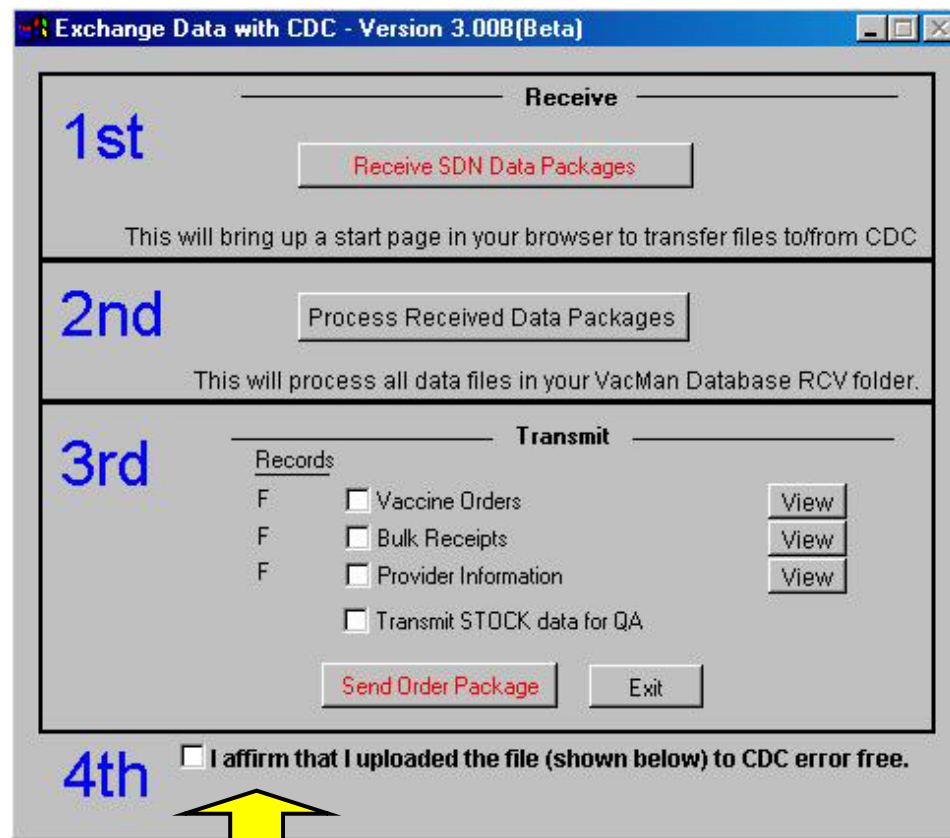- If these are correct, select the **Upload** button.

Result: A **File Upload Complete** window displays.

- Select you project's name from the **Available Activities** list.

- Select the **4**th Section: Affirm check box. ☑ "**I affirm that I uploaded the file (shown below) to CDC error free**".
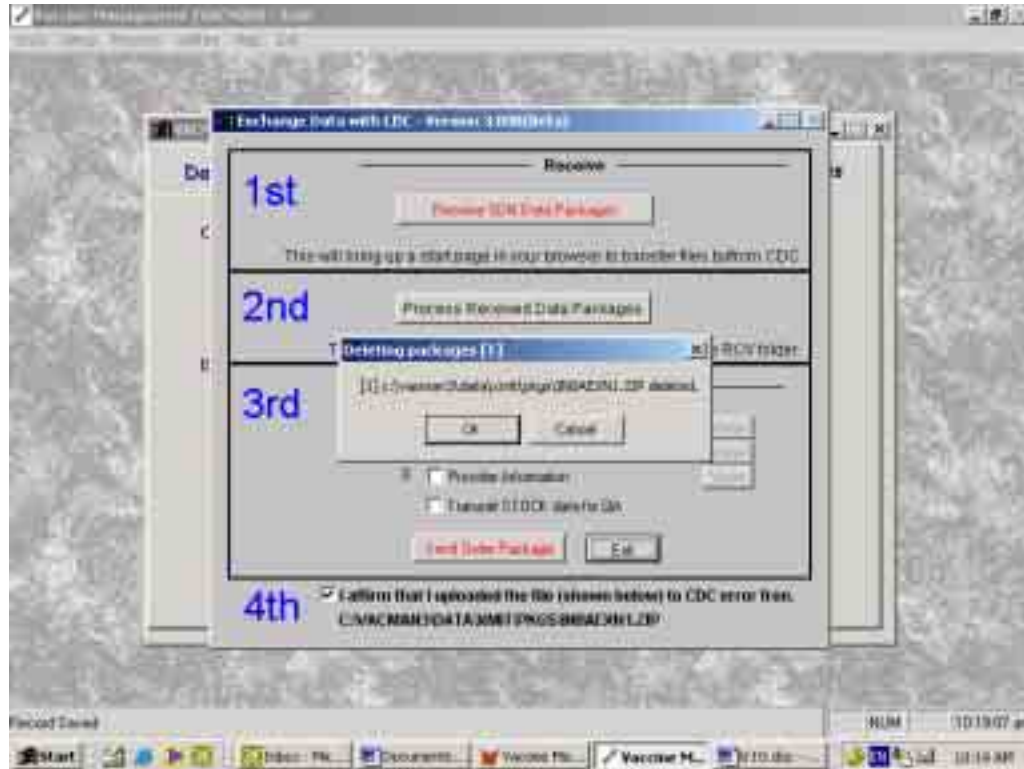
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Result: A message box displays: **Delete Packages?**

- Select **OK** if you agree.

■   Select **OK** to continue.

■   This completes the Exchange.

Backup and Pack Database Table(s)

Immediately after successfully processing data received from CDC, perform the Backup and Pack Database procedures as described earlier in this chapter.

Perform frequent backups, at least one every day.

• Although you can send and receive data to and from CDC while other network users are using VACMAN, YOU MUST ENSURE ALL OTHER USERS HAVE COMPLETELY EXITED VACMAN and that YOU ARE THE ONLY USER currently using VACMAN prior to making BACKUPS of your VACMAN data. Network operating systems do not allow files that are already open by other users to be copied or backed up.

• It is your responsibility to make backups of your VACMAN databases on a regular basis, particularly after exchanging data with CDC. This is to ensure that updated order status data is not lost if you experience data corruption or system problems that require restoring data from a backup.

Important Procedures in the event of data corruption

• If you have recently experienced data **corruption** problems or have recently restored data from a previous backup (older data), then you can help avoid problems with rejected orders if you ensure that you download and process recent data from CDC PRIOR TO SENDING ANY VACCINE ORDERS TO CDC.

• VACMAN will use current information received from CDC to maintain "synchronized" records, and in some cases MAY restore RECENT data that may have been lost. It will **NOT**, however, restore data that was lost AFTER your received it from CDC.

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